

Contents of volume 51

Research Papers

- The applicability of the shallow water equations for modelling violent wave overtopping
J.B. Shiach, C.G. Mingham, D.M. Ingram and T. Bruce 1
- Improved boundary equations for elliptic water wave models
U.M. Saied and I.K. Tsanis 17
- A numerical study of Solitary wave interaction with regular obstacles
P. Lin 35
- Numerical simulation of breaking waves by a multi-scale turbulence model
Q. Zhao, S. Armfield and K. Tanimoto 53
- A perturbation method to solve dispersion equations for water waves over dissipative media
F.J. Mendez and I.J. Losada 81
- Settling velocity of sediments at high concentrations
T.E. Baldock, M.R. Tomkins, P. Nielsen and M.G. Hughes 91

Book Review

- The Mechanics of Scour in the Marine Environment
R. Soulsby 101

Research Papers

- An empirical model to estimate the propagation of random breaking and nonbreaking waves over vegetation fields
F.J. Mendez and I.J. Losada 103
- Evaluation of coastal area modelling system at an estuary mouth
J. Sutherland, D.J.R. Walstra, T.J. Chesher, L.C. van Rijn and H.N. Southgate 119
- An efficient and flexible computational model for solving the mild slope equation
J. Tang, Y. Shen, Y. Zheng and D. Qiu 143
- Bed load transport under irregular waves plus current from Monte Carlo simulations of parameterized models with application to ripple migration rates observed in the field
L.E. Holmedal and D. Myrhaug 155
- A low Reynolds number $k-\epsilon$ model validated for oscillatory flows over smooth and rough wall
E. Fori and P. Scandura 173
- Linear analysis of a new type of extended Boussinesq model
K. Meftah, P. Sergent and P. Gomi 185

Research Papers

- Morphological response of tidal basins to human interventions
N.G. Kragtewijk, T.J. Zitman, M.J.F. Stive and Z.B. Wang 207
- Interaction of non-breaking regular waves with a periodic array of artificial porous bars
S.-W. Twu and C.-C. Liu 223
- Vertical flow structure during Sandy Duck: observations and modeling
A.J.H.M. Reniers, E.B. Thornton, T.P. Stanton and J.A. Roelvink 237

Development of indices for the evaluation of dune recovery techniques A. Matias, Ó. Ferreira, J.A. Dias and A. Vila-Concejo	261
<i>Research Papers</i>	
Cyclone induced storm surge and flood forecasting in the northern Bay of Bengal H. Madsen and F. Jakobsen	277
Nearshore wave prediction by coupling a wave model and statistical methods T. Kobayashi and T. Yasuda	297
Vertical variation in radiation stress and wave-induced current H. Xia, Z. Xia and L. Zhu	309
A simplified model of rip currents systems around discontinuous submerged barriers G. Bellotti	323
<i>Research Papers</i>	
Equilibrium and cross-sectional stability of tidal inlets: application to the Frisian Inlet before and after basin reduction J. van de Kreeke	337
Observed and predicted bed forms and their effect on suspended sand concentrations B.T. Grasmeijer and M.G. Kleinhans	351
Seiche characteristics of Rotterdam Harbour M.P.C. de Jong and J.A. Battjes	373
Application of the r largest-order statistics for long-term predictions of significant wave height C. Guedes Soares and M.G. Scotto	387
Decomposition of incident and reflected higher harmonic waves using four wave gauges C.-Y. Lin and C.-J. Huang	395
Direct 3-D numerical simulation of wave forces on asymmetric structures D.-S. Hur, N. Mizutani and D.-S. Kim	407
An analytical solution of the mild-slope equation for waves around a circular island on a paraboloidal shoal H.-W. Liu, P. Lin and N.J. Shankar	421
Linear analysis of the multi-layer model P.J. Lynett and P.L.-F. Liu	439
Application, modelling and validation of surfzone drifters D. Johnson and C. Pattiaratchi	455
Effect of wave directional spread on the radiation stress: comparing theory and observations F. Feddersen	473
Surf zone wave overtopping a trapezoidal structure: 1-D modelling and PIV comparison P.K. Stansby and T. Feng	483
Modelling cross-shore intensive sand transport and changes of bed grain size distribution versus field data L.M. Kaczmarek, J. Biegowski and R. Ostrowski	501
<i>Research Papers</i>	
A simple new shoreline change model J.K. Miller and R.G. Dean	531
Using RANS to simulate vortex generation and dissipation around impermeable submerged double breakwaters T.-W. Hsu, C.-M. Hsieh and R.R. Hwang	557
Process-based modelling of a shoreface nourishment N.M. Grunnet, D.-J.R. Walstra and B.G. Ruessink	581
Full-scale wave-overtopping measurements on the Zeebrugge rubble mound breakwater P. Troch, J. Geeraerts, B. Van de Walle, J. De Rouck, L. Van Damme, W. Allsop and L. Franco	609
Morphodynamics of intermediate beaches: a video imaging and numerical modelling study R. Ranasinghe, G. Symonds, K. Black and R. Holman	629
<i>Editorial</i>	
Perspectives on Special Issue papers on coastal morphodynamic modeling V.C. Lakhan	657

Research Papers

Evolution of shoreline position moments D.E. Reeve and M. Spivack	661
An analytical model to predict dune erosion due to wave impact M. Larson, L. Erikson and H. Hanson.	675
A predictive relationship for the spacing of beach cusps in nature T. Sunamura.	697
Formation and evolution of multiple intertidal bars on microtidal beaches: application of a morphodynamic model G. Masselink.	713
Investigations on the morphodynamics of sandy tidal flats: a modeling application G. Malvarez, F. Navas and D.W.T. Jackson	731
A long-term (decadal scale) evolution model for microtidal barrier systems J.A. Jiménez and A. Sánchez-Arcilla	749
Estuarine morphodynamics A. Hibma, M.J.F. Stive and Z.B. Wang.	765
Coastal profile modeling along the Russian Arctic coast I.-O. Leont'yev.	779
Gravity-driven sediment transport on the continental shelf: implications for equilibrium profiles near river mouths C.T. Friedrichs and L.D. Wright	795
Nourishing the shoreface: observations and hindcasting of the Egmond case, The Netherlands M.J.P. van Duin, N.R. Wiersma, D.J.R. Walstra, L.C. van Rijn and M.J.F. Stive	813
Predicting the effect of beach nourishment and cross-shore sediment variation on beach morphodynamic assessment L. Benedet, C.W. Finkl, T. Campbell and A. Klein	839
Analysis of long-term sand accumulation at a harbor using 2DH numerical simulation M. Dibajnia, R.B. Nairn and P. Ross	863
Development and validation of a three-dimensional morphological model G.R. Lesser, J.A. Roelvink, J.A.T.M. van Kester and G.S. Stelling.	883
Evaluating the performance of morphological models J. Sutherland, A.H. Peet and R.L. Soulsby	917

Research Papers

An efficient method to identify cross-sea states from wave measurements R. Piscopia, A. Panizzo and P. De Girolamo	941
Lessons from inlet relocation: examples from Southern Portugal A. Vila-Concejo, Ó. Ferreira, B.D. Morris, A. Matias and J.M.A. Dias	967
2-D numerical analysis of near-field flow at low-crested permeable breakwaters N. Garcia, J.L. Lara and I.J. Losada	991
Analysis of some key parametrizations in a beach profile morphodynamical model K. Spielmann, D. Astruc and O. Thual	1021
Tentative engineering approach to scour around breakwaters in random waves D. Myrhaug, H. Rue and A. Tørum	1051

Research Papers

Wave momentum flux parameter: a descriptor for nearshore waves S.A. Hughes	1067
Estimation of wave run-up on smooth, impermeable slopes using the wave momentum flux parameter S.A. Hughes	1085
Density gradation in cross-shore sediment transport R.L. Koomans and R.J. de Meijer	1105
Boussinesq evolution equations: numerical efficiency, breaking and amplitude dispersion H. Bredmose, H.A. Schäffer and P.A. Madsen	1117
Potential shoreline changes induced by three-dimensional bathymetric anomalies with gradual transitions in depth C.J. Bender and R.G. Dean	1143
Flow tunnel measurements of velocities and sand flux in oscillatory sheet flow for well-sorted and graded sands T. O'Donoghue and S. Wright	1163

Contents of volume 51	1185
---------------------------------	------